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Spelled System - CTR

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September 8, 1969

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TO:

SAM B. SEBREE (1886-1958)
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Frederick P. Haas, Esq. Cy Hetsko, Esq. H. Henry Ramm, Esq. Paul D. Smith, Esq. Arthur Stevens, Esq. Addison Yeaman, Esq.

Re: Kurt Enslein's Analysis of Doll Data

We have received the first progress report from Kurt Enslein on his analysis of Doll's data as required by the contract we entered into with him. A copy of this contract and the first report is enclosed with this letter.

Most of the work Enslein has done to date consists of developing computer programs and procedures to perform the analyses called for under our contract. He has produced preliminary tables on deaths in the various classifications of disease according to smoking groups, years in the study, and age groups. These are represented by tables in the appendix of his report.

Enslein in his analysis is using the sample of "pure" cigarette smokers furnished by Doll. "Pure" smoking is defined as cigarette smoking uncomplicated by pipes, cigars, or mixtures of the three types of smoking. Enslein has compared the distributions of his pure smokers in the various age categories with Doll's distributions in these categories. He has found a greater concentration of young physicians in the sample of "pure"

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smokers than Doll had in his total population. The concentration is also greater in the sample furnished than in the Registrar General's census reports. Enslein believes that this is probably due to the lack of pipe and cigar smokers in his sample since pipe and cigar smokers tend to be older.

Using deaths from all causes, Enslein has completed an analysis of the deaths observed for each age group and smoking category in his sample compared to the expected deaths in each such category based on the total mortality rate for that age group. He reports statistically significant differences in the nonsmoking groups, the more than 25 cigarettes per day smoker category, and the ex-smoker category. (In Table 6, the column marked "Total" should probably be labeled "Ex-smokers.") However, Enslein reports no statistically significant difference in the 1-14 cigarette per day smoker category and the 15-24 cigarette per day category.

In comparing Doll's sample with the Registrar General's census figures, Enslein has found a wide discrepency between the death rates in two age groups: 65-74 and 75 and over. He says this discrepency is unexplained in his mind. He notes that comparison of other figures with Doll's figures may shed some light on sampling problems involved in Doll's report.

We are asking Enslein a number of questions concerning this first report and will continue to review his work as this project moves forward.

Sincerely,

William W. Shinn

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WWS/r Enclosures

116-24764.